

AMENDMENT OF THE CLAIMS

Claim 1. (currently amended) An optical semiconductor module comprising:

a mounting member, having an element mounting surface and a contacting surface, said element mounting surface and said contacting surface extending along a reference plane intersecting a predetermined axis, said element mounting surface and said contacting surface being substantially planar, and said mounting member being a plate-like member;

a first member having a tubular portion, a first end portion and a second end portion, said tubular portion extending in a direction of the predetermined axis, said first end portion being provided at one end of the tubular portion and being mounted on said contacting surface of the mounting member, said second end portion being provided at the other end of the tubular portion, said first end portion being bonded to said contacting surface of said mounting member, and an outer edge of said first end portion being located inside of an edge of said mounting member;

an optical semiconductor element provided in the tubular portion of said first member such that an optical axis thereof is directed in a direction of said predetermined axis, said optical semiconductor element being mounted in said element mounting surface;

a second member having a tubular portion extending in a direction of the predetermined axis, said second member being mounted on the second end of said first member; ~~and~~

an optical fiber optically coupled to said optical semiconductor element, said optical fiber extending in the tubular portion of said second member; and
a lens held by said first member, said lens being provided between said optical fiber and said optical semiconductor element.

Claim 2. (previously presented) An optical semiconductor module according to claim 1, further comprising a ferrule accommodated in the tubular portion of said second member, wherein said optical fiber is supported by said ferrule.

Claim 3. (currently amended) ~~An optical semiconductor module according to claim 2,~~
~~further~~ An optical semiconductor module comprising:

a mounting member extending along a reference plane intersecting a predetermined axis;

a first member having a tubular portion, a first end portion and a second end portion, said tubular portion extending in a direction of the predetermined axis, said first end portion being provided at one end of the tubular portion and being arranged on said mounting member, and said second end portion being provided at the other end of the tubular portion;

an optical semiconductor element arranged in the tubular portion of said first member such that an optical axis thereof is directed in a direction of the predetermined axis;

a second member having a tubular portion extending in a direction of the predetermined axis, said second member being arranged on the second end of said first member;

an optical fiber optically coupled to said optical semiconductor element, said optical fiber extending in the tubular portion of said second member;

a ferrule accommodated in the tubular portion of said second member, wherein said optical fiber is supported by said ferrule; and

a third member having a tubular portion and a pair of openings, said tubular portion extending in a direction of the predetermined axis and accommodating said second member and said ferrule, and said pair of openings being provided at two ends of the tubular portion, wherein the optical fiber extends through one of the pair of openings of said third member to reach said ferrule.

Claim 4. (original) An optical semiconductor module according to claim 2, wherein

said ferrule has first and second end faces, and

the optical fiber extends from the first end face to the second end face of said ferrule.

Claim 5. (previously presented) An optical semiconductor module according to claim 4, further comprising a sleeve, said ferrule is inserted in said sleeve;

wherein said second member has a depressed portion provided in an inner wall surface of the tubular portion, and

wherein said sleeve is arranged in the depressed portion of said second member.

Claim 6. (currently amended) An optical semiconductor module according to claim 2 ~~4~~,
wherein the tubular portion of said second member has first and second portions
arranged in a direction of the predetermined axis,
wherein the first portion accommodates said ferrule, and
wherein the second portion is provided such that another ferrule can be inserted
therein.

Claim 7. (canceled)

Claim 8. (currently amended) An optical semiconductor module according to claim 1,
wherein said optical semiconductor element is ~~either one of~~ a light-emitting element ~~and~~
or a light-receiving element.

Claim 9. (previously presented) An optical semiconductor module according to claim 1,
wherein said first member is secured to said mounting member at an annular connecting
portion to secure said optical semiconductor element.

Claim 10. (previously presented) An optical semiconductor module according to claim
1, wherein said mounting member is included in a cylindrical shape having a diameter of
not more than 4 mm and a center axis perpendicular to the reference plane.

Claim 11. (previously presented) An optical semiconductor module according to claim 4,

wherein the tubular portion of said second member has first and second portions arranged in a direction of the predetermined axis,

wherein the first portion accommodates said ferrule, and

wherein the second portion is provided such that another ferrule can be inserted therein.

12. (previously presented) An optical semiconductor module according to claim 4, further comprising a sleeve, said ferrule is inserted in said sleeve;

wherein said tubular portion of said second member has first to third portions sequentially arranged in said predetermined axis;

wherein said second member has a depressed portion provided in an inner wall surface of said second portion thereof,

wherein said sleeve is provided in the depressed portion of said second member, and

wherein said inner diameter of said second portion is greater than inner diameters of said first and third portions.

Claim 13. (previously presented) An optical semiconductor module according to claim 4,

wherein the tubular portion of said second member has first and second portions arranged in a direction of the predetermined axis,

wherein the first portion accommodates said ferrule, and

wherein the second portion is provided such that another ferrule can be inserted therein.

Claim 14. (previously presented) An optical semiconductor module according to claim 1, wherein said first member is resistance-welded to said mounting member at an annular connecting portion to secure said optical semiconductor element.

15. (new) An optical semiconductor module according to claim 1,

wherein said mounting member includes a terminal electrode having a side surface extending in a direction of said predetermined axis;

wherein said terminal electrode is connected to said optical semiconductor element;

wherein said first member includes an inner wall surface extending in said direction of said predetermined axis; and

wherein said inner wall surface faces said side surface of said terminal electrode.

16. (new) An optical semiconductor module according to claim 1,

wherein said mounting member includes a terminal electrode connected to said optical semiconductor element;

wherein said terminal electrode has an inner portion projecting from said reference plane in a direction of said predetermined axis; and

wherein said tubular portion of said first member surrounds said inner portion of said terminal electrode.

17. (new) An optical semiconductor module comprising:

a mounting member,

an optical semiconductor element supported by said mounting member;

a first member having a first tubular portion, a first end portion and a second end portion, said first end portion being provided at one end of said first tubular portion, said first member is in communication with said mounting member, said first end portion having a smaller diameter than said mounting member; said second end portion being provided at the other end of said first tubular portion; and

a second member having a tubular portion extending in a direction of the predetermined axis, said second member being mounted on the second end of said first member.